

CLAIMS

1 claim:

1. A method for screening for a transdominant intracellular bioactive agent capable of altering the phenotype of a cell, said method comprising the steps:
  - 5 a) introducing a molecular library of randomized candidate nucleic acids into a plurality of cells, wherein each of said nucleic acids comprises a different nucleotide sequence;
  - b) screening said plurality of cells for a cell exhibiting an altered phenotype, wherein said altered phenotype is due to the presence of a transdominant bioactive agent.
2. A method according to claim 1 further comprising the step:
  - 10 c) isolating said cell exhibiting an altered phenotype.
3. A method according to claim 2 further comprising the step:
  - d) isolating a candidate nucleic acid from said cell.
4. A method according to claim 2 or 3 further comprising the step:
  - 15 e) isolating a target molecule using
    - i) a candidate nucleic acid; or
    - ii) the expression product of a candidate nucleic acid.
5. A method according to claim 1 wherein said randomized candidate nucleic acids are expressed in said cells to produce a plurality of randomized candidate expression products.
- 20 6. A method according to claim 5 wherein said randomized candidate expression products are peptides.
7. A method according to claim 5 wherein said randomized candidate expression products are nucleic acid transcripts.
- 25 8. A method according to claim 1 wherein said nucleic acids further comprise a presentation sequence capable of presenting said expression product in a conformationally restricted form.

9. A method according to claim 1 wherein said introducing is with retroviral vectors.
10. A method according to claim 1 wherein said cells are mammalian cells.
11. A method according to claim 1 wherein said library comprises at least  $10^4$  different nucleic acids.
- 5 12. A method according to claim 1 wherein said library comprises at least  $10^5$  different nucleic acids.
13. A method according to claim 1 wherein said library comprises at least  $10^6$  different nucleic acids.
- 10 14. A method according to claim 1 wherein said library comprises at least  $10^7$  different nucleic acids.
- 15 15. A method according to claim 1 wherein said library comprises at least  $10^8$  different nucleic acids.
16. A molecular library of retroviruses comprising at least  $10^4$  different randomized nucleic acids.
- 15 17. A molecular library of retroviruses according to claim 21 comprising at least  $10^5$  different randomized nucleic acids.
18. A molecular library of retroviruses according to claim 21 comprising at least  $10^6$  different randomized nucleic acids.
- 20 19. A molecular library of retroviruses according to claim 21 comprising at least  $10^7$  different randomized nucleic acids.
20. A molecular library of retroviruses according to claim 21 comprising at least  $10^8$  different randomized nucleic acids.

21. A cellular library of mammalian cells containing a molecular library of retroviral constructs, said molecular library comprising at least  $10^4$  different randomized nucleic acids.

5 22. A cellular library according to claim 21 wherein said constructs are integrated into the cellular genome.

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